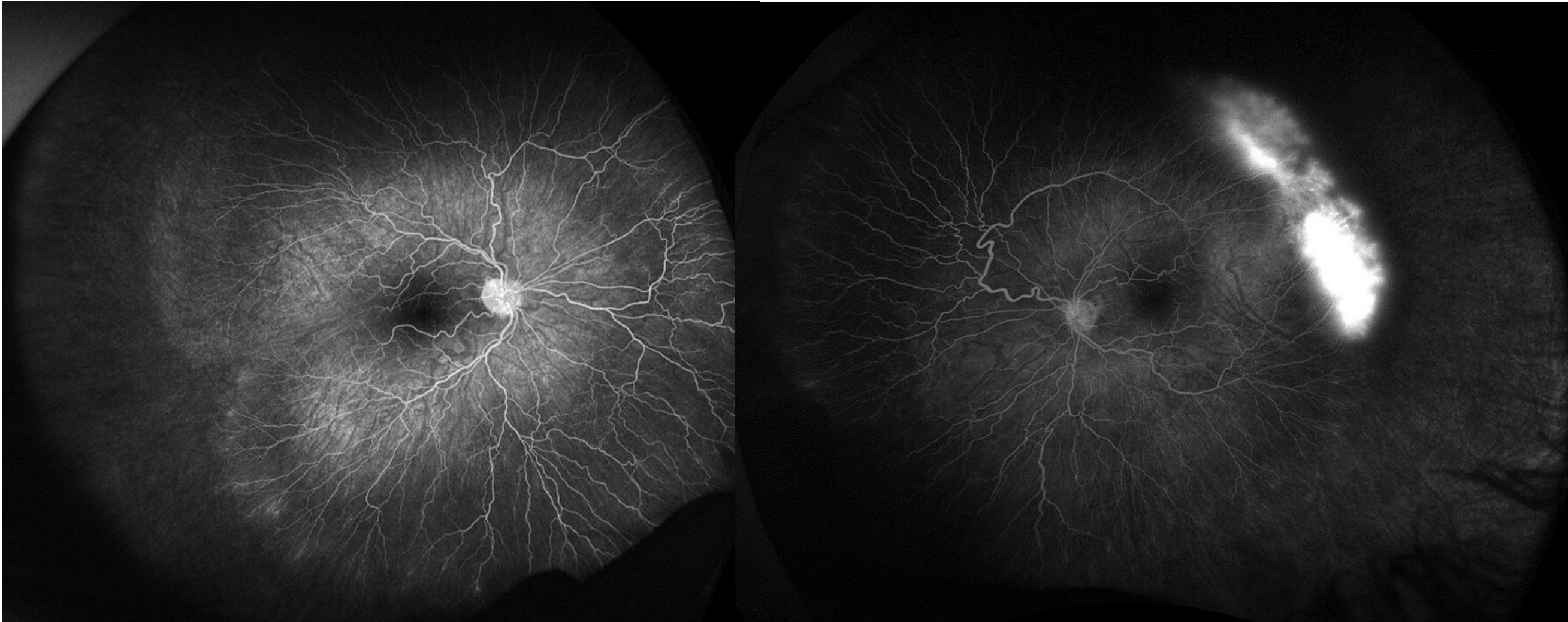


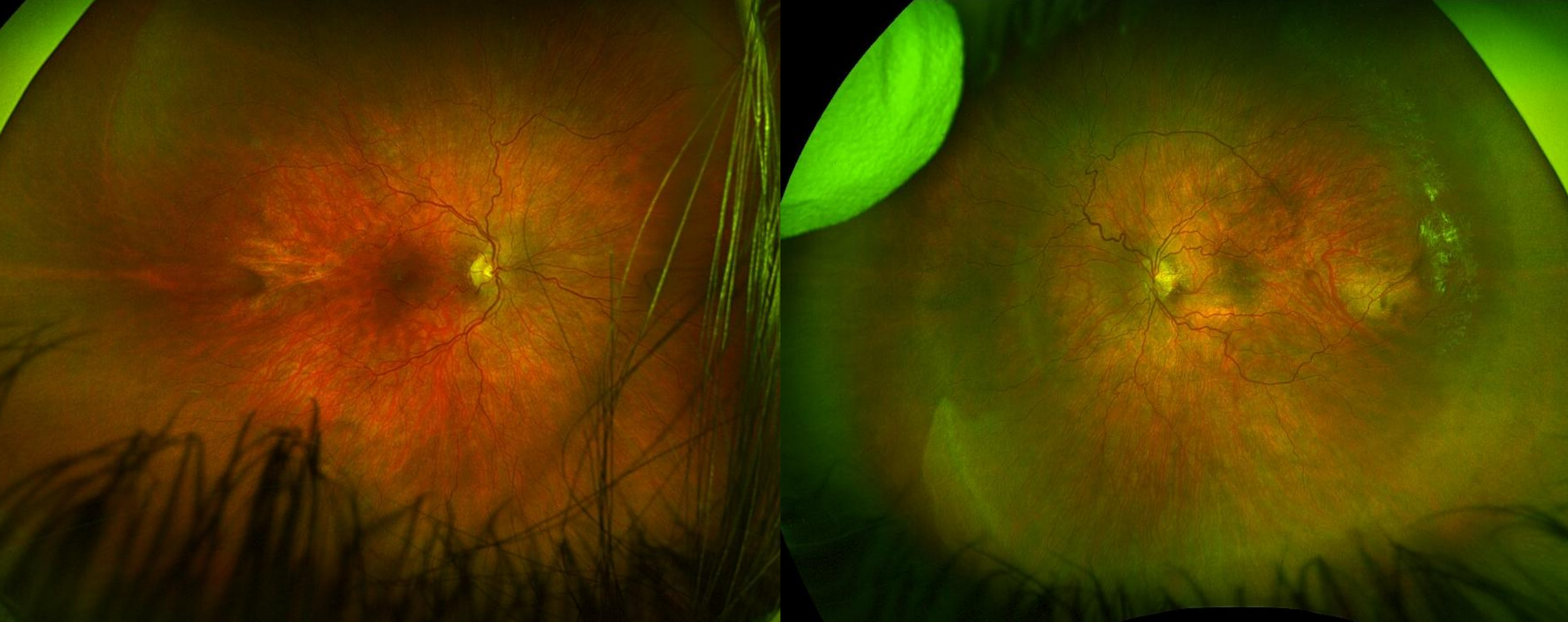
Long Term Outcomes of Anti VegF in Treatment of Retinopathy of Prematurity in Northern Ireland; A 13 Year Retrospective Case Series

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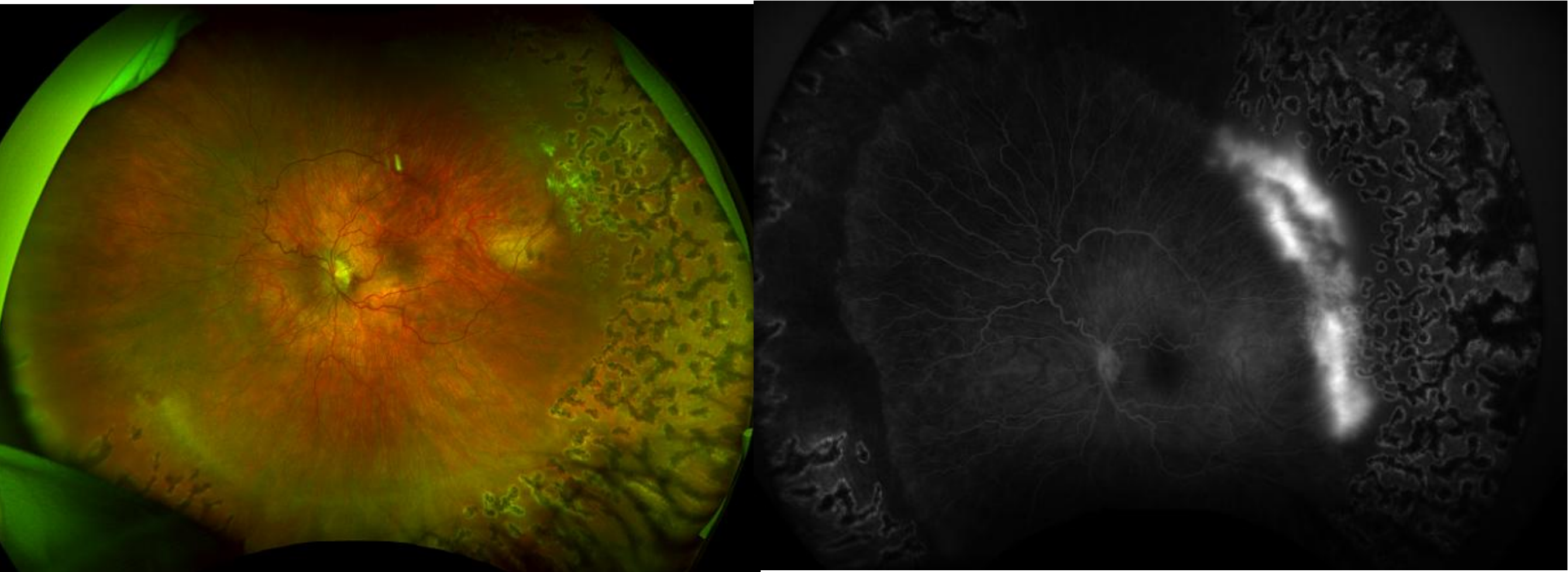
Case 1, FFA Sept 2024



Case 1 December 2024



Case1 March 2025



Case 1

A 10 year old girl who was born at 23+5 weeks, 521g in 2014. She had bilateral stage 3 ROP treated with bilateral avastin injections at 35+5 weeks. She was seen regularly in clinic until 2017, including an examination under anaesthetic (EUA) in 2016, then lost to follow up. She has high myopia and grade 1 foveal hypoplasia and an abnormal peripheral retinal appearance seen in paedrs refraction clinic in July 2024 so she was referred to paediatric ophthalmology. In the left eye there was peripheral retinal neovascularisation with leaking on fundus fluorescein angiography (FFA) in Sept 2024. She underwent laser to bilateral peripheral avascular retina (PAR) in Oct 2024. Post laser she had right cystoid macular oedema (CMO) and hyphaema, the left neovascularisation was regressing and she was on topical steroid. By Dec 2024 the CMO had resolved. She had a repeat FFA March 2025 and further laser was required. In October 2025 there was good laser coverage, but she had anisocoria likely due to damage to the long ciliary nerve. Her visual acuity (VA) at that stage was RE 6/15, LE 6/38.

Study Design

This was a retrospective case series on all patients who had received anti VegF injcetions for retinopathy of prematurity (ROP) in Northern Ireland from its introduction in 2014 until the time of data collection in 2024. The main data for identification was whether the babies had had FFA and subsequent laser to the peripheral retina, and if not were they still under review. This is due to the long term outcomes of antiVegF for ROP being relatively unknown since it was only started in the NHS in 2011.

Data Collection

Records of all babies who had received antiVegf by the department ROP screening coordinator, on an excel spreadsheet. The data was missing from Western trust up to 2021 but the Belfast trust dataset was complete. Data was kept from 2011- September 2024 and patients notes were checked on their electronic care record and Epic to see if any further investigations, treatment or follow up had been done.

Results

32 babies were identified from January 2011 to October 2024 who had received bilateral anti vegF injections at initial treatment for ROP. The mean gestational age at birth was 25+3 weeks. The mean birth weight was 700grams. The mean gestational age at first treatment was 35+2 weeks. 7 babies went on to have further anti vegF injections. 6 had 2 bilateral, one had a third in the right eye.

Monitoring without Laser

16 babies did not go on to have laser. 3 passed away. One was discharged age 9, vascularised to within 2DD of ora. 10 others still under review, 8 of whom are under 2 years of age. Of these, 7 are vascularised to within 2DD of ora on FFA, and 2 have an FFA planned. One not vascularised to 2DD but no leaking of vessels on FFA, age 11m. The othe 2 cases are presented on this poster.

Recommendations and Conclusion

AntiVegF is now a common initial treatment for ROP. Residual peripheral avascular retina is common. Every patient needs close follow up initially, usually including fundus fluorescein angiography, and long term follow up of at least 10 years is particularly required in those who have not had laser to peripheral avascular retina due to risk of neovascularisation. General advice from GOSH is to electively laser any that have more than 2 DD PAR or associated vascular abnormalities/leakage. High myopes may also be considered. High risk of DNA or too difficult to examine should would also have low tolerance for considering laser. Be aware of risks associated with laser especially CMO, inflammation, bleeding and anisocoria.

Laser

17/32 (53%) babies had diode laser after antiVegF to peripheral avascular retina (PAR). Mean interval was 14 months for all laser. Mean interval for PAR/early recurrence was 4.2 months. The range 2-114 months due to Case1 on this poster having laser at age 10. Early laser (2 months post (AntiVegF) for ROP recurrence, later laser (4-12 months) was for PAR on FFA. The other 2 children who did not have laser as babies are presented here.

